

What is claimed is:

1. A method for image capture at less than a nominal minimum focus distance of a camera, comprising the steps of:
 - selecting a close up operational mode for said camera;
 - initiating image capture through a variable aperture at a first aperture size;
 - 5 collecting a predetermined amount of ambient scene light during image capture;
 - initiating closing of said variable aperture; and
 - illuminating a flash unit during closing of said variable aperture at a predetermined restricted second aperture size corresponding to said close
 - 10 up operational mode.
2. The method of claim 1, wherein said step of collecting is performed with said variable aperture at a maximum aperture size.
3. The method of claim 1, wherein said step of selecting includes determining whether an object to be photographed is located at less than a nominal minimum focus distance of said camera.
4. The method of claim 3, wherein said step of determining includes determining whether an object to be photographed is located within one of a plurality of ranges less than said nominal minimum focus distance.
5. The method of claim 4, wherein said step of illuminating includes using a separate predetermined restricted second aperture size corresponding to each of said plurality of ranges.

6. The method of claim 4, wherein said step of collecting includes using a separate predetermined amount of ambient scene light corresponding to each of said plurality of ranges.
7. The method of claim 3, wherein said step of determining includes performing a range finding function with said camera.
8. The method of claim 1, wherein said step of illuminating includes detecting said predetermined restricted aperture size.
9. The method of claim 8, wherein said variable aperture is a scanning aperture shutter.
10. A camera, comprising:
 - an image capture system having a nominal minimum focus distance including a variable aperture; and
 - an exposure control system operatively coupled to said image capture system and adapted to use a fill flash function to capture images at less than said nominal minimum focus distance.
11. The camera of claim 10, wherein said exposure control is adapted to collect a predetermined amount of ambient scene light during image capture, to initiate closing of said variable aperture, and illuminate a flash unit during closing of said variable aperture at a predetermined restricted aperture size.
12. The camera of claim 11, wherein said variable aperture uses a maximum aperture size for collecting said predetermined amount of ambient scene light.

13. The camera of claim 11, wherein said exposure control system includes a ranging system adapted to determine whether an object to be photographed is located at less than a nominal minimum focus distance of said camera.
14. The camera of claim 13, wherein said ranging system is adapted to determine whether an object to be photographed is located within one of a plurality of ranges less than said nominal minimum focus distance.
15. The camera of claim 14, wherein said exposure control system is adapted to illuminate said flash unit at a different predetermined restricted second aperture size corresponding to each of said plurality of ranges.
16. The camera of claim 14, wherein said exposure control system is adapted to collect a separate predetermined amount of ambient scene light corresponding to each of said plurality of ranges.
17. The camera of claim 11, wherein said image capture system includes a detector operatively connected to said exposure control system and adapted for sensing said predetermined restricted aperture size of said variable aperture.
18. The camera of claim 10, wherein said variable aperture is a scanning aperture shutter.
19. A camera for capturing images at less than a nominal minimum focus distance, comprising:
an image capture system having a nominal minimum focus distance including a variable aperture; and

5 an exposure control system operatively coupled to said image capture system and including a photocell adapted to sense ambient scene light during image capture,

wherein said exposure control is adapted to

perform image capture with ambient light at a first aperture size,

10 sense a predetermined amount of ambient scene light during image capture, initiate closing of said variable aperture, and

illuminate a flash unit during closing of said variable aperture at a predetermined restricted second aperture size.

20. The camera of claim 19, further comprising a ranging system adapted to determine whether an object to be photographed is located within one of a plurality of ranges less than said nominal minimum focus distance, wherein said exposure control system is adapted to illuminate said flash unit at a different
5 predetermined restricted second aperture size and to collect a separate predetermined amount of ambient scene light corresponding to each of said plurality of ranges.